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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,193	06/19/2001	Ronald Patrick Huemoeller	W2K1035	2823

23504 7590 03/23/2005

WEISS & MOY PC  
4204 NORTH BROWN AVENUE  
SCOTTSDALE, AZ 85251

EXAMINER
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ESTRADA, MICHELLE

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/884,193

**Applicant(s)**HUEMOELLER ET AL. **Examiner**

Michelle Estrada

**Art Unit**

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 13-22 and 26-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 38-40 is/are allowed.
- 6) ☒ Claim(s) 13, 14, 26-28, 30 and 31 is/are rejected.
- 7) ☒ Claim(s) 15-22, 29 and 32-37 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/21/03</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election without traverse of Group II (claims 13-22) in the reply filed on 12/27/04 is acknowledged.

### ***Claim Objections***

Claims 28 and 31 are objected to because of the following informalities: in line 2, "is" should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Jacobson et al. (6,517,995).

Re claim 13, Jacobson et al. disclose embossing a top side of the substrate (410) with a tool having features defining a reverse image of channels for addition of circuit material; and adding circuit material (420) within channels formed by the embossing.

Re claim 14, Jacobson et al. disclose an integrated circuit manufactured by the method of claim 13.

Claims 13, 14, 26-28, 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Clothier et al. (6,815,709).

Re claim 13, Clothier et al. disclose embossing a top side of the substrate (3) with a tool having features defining a reverse image of channels for addition of circuit material; and adding circuit material (4) within channels formed by the embossing.

Re claim 14, Clothier et al. disclose an integrated circuit manufactured by the method of claim 13.

Re claim 26, Clothier et al. disclose further comprising providing a homogeneous single sheet of dielectric material (3), and wherein the embossing embosses the top side of the dielectric material to form the channels (See fig. 2C).

Re claim 27, Clothier et al. disclose wherein the embossing embosses channels having sides extending to a plane defining a top surface of the dielectric sheet and a bottom beneath the plane.

Re claim 28, Clothier et al. disclose wherein the embossing embosses channels having a bottom of the channels located at a second plane substantially above the bottom surface of the dielectric sheet (3).

Re claim 30, Clothier et al. disclose wherein the embossing embosses channels having a sides extending to a plane defining a top surface of the substrate and a bottom beneath the plane.

Re claim 28, Clothier et al. disclose wherein the embossing embosses channels having a bottom of the channels located at a second plane substantially above the bottom surface of the substrate.

***Allowable Subject Matter***

Claims 15-22, 29 and 32-37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 38-40 are allowed.

The following is an examiner's statement of reasons for allowance: there is no disclosure in the prior art of electrically connecting an integrated die to the circuit material within the channels.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Estrada whose telephone number is 571-272-1858. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michelle Estrada  
Examiner  
Art Unit 2823

MEstrada  
March 19, 2005